



Clay Civils

Hepworth is the UK's largest manufacturer of drainage products supplying civil engineering and construction projects throughout the UK and Worldwide.

The diverse range of products available from Hepworth meets the needs of specifiers, contractors and groundworkers involved in a variety of projects and applications, including adoptable and private sewers, industrial and commercial developments, road construction, sub-soil drainage, power and communications ducting.



Product Selector

SuperSleve 150

Pipes			
Description	Dia	Cat No	
Full Length 150mm x 1.75m	150	SP2	
Rocker	0.3m 0.6m 1.0m	SP030/2 SP060/2 SP100/2	
Fittings			
Description	Dia	Cat No	
Couplings (Polypropylene) With EPDM sealing rings With Nitrile sealing rings	150	SC1/2 SC3/2	
90° Bend	150	SB1/2	
45° Bend	150	SB2/2	
30° Bend	150	SB3/2	
15° Bend	150	SB4/2	
Rest Bend	150	SBR2	
45° Oblique Junction	150x100 150x150	SJ1/2 SJ1/3	
90° Curved Square Junction	150x100 150x150	SJ2/2 SJ2/3	
Oblique Saddle Small - For pipes up to and including 300mm dia	150	SJS1/1	
Large - For pipes larger than 300mm dia	150	SJS2/2	
Square Saddle Small - For pipes up to and including 300mm dia	150	SJS4/2	
Large - For pipes larger than 300mm dia	150	SJS5/2	
Taper Pipe	100-150 150-225	ST2/1 ST3/2	

Fittings			
Description	Dia	Cat No	
Socket Adaptor for connection to traditional pipes and fittings	150	SA1/2	
Adaptor to HepSeal	150	SA2/2	
Low-back P-trap	150	SG1/2	
Hopper, integral inlet complete with plastic grid + Spares Grid Bridge	150	SH3/2 IG1P QB2	
Rodding Point Oval (aluminum)	150	SRP1/2	
Access Pipe	150	SPA2	
45° Access Bend	150	SBA2	
45° Single Oblique Access Junction Left-hand (illustrated)	150x100 150x150	SJA2L SJA3L	
45° Single Oblique Access Junction Right-hand	150x100 150x150	SJA2R SJA3R	
Access Raising Piece	Height 75mm 100mm 225mm 300mm	SRP1 SRP2 SRP3 SRP4	
Alloy Lid & Frame		ISO	
Adaptors (polypropylene)			
Description	Dia	Cat No	
Rainwater Adaptor to round or square rainwater pipes up to 100x100mm	150	SA21	
Adaptor Coupling to HepSleve	150	SA3/2	
Adaptors to 160mm PVCu soil pipes SuperSleve HepSleve	150 150	SA10 VA10	

Adaptors (polypropylene)			
Description	Dia	Cat No	
Double Ended Spigot Adaptor Converts PlastiDrain to SuperSleve	150	SA15/2	
Sliding Coupling	150	SC4/2	
Adaptor to Cast Iron Pipes made to BS 437	150	SA14/2	
Stopper	150	SS1/2	
Testing Stopper with integral nipple	150	SS2/2	
Water Stop 375mm on 150mm coupling	150	SWS2	

SuperSleve 225

Pipes			
Description	Dia	Cat No	
Full Length 225mm x 1.75m	225	SP175/4S	
Plain End Pipes 225mm x 1.75m Plain end pipes for use with Nitrile couplings	225	SP175/4	
Rocker	0.3m 0.6m 1.0m	SP030/5 SP060/5 SP100/5	
Short Length	0.3m 0.6m 1.0m	SP030/5S SP060/5S SP100/5S	
Fittings			
Description	Dia	Cat No	
Spare Couplings EPDM Nitrile	225 225	SC1/5 SC3/5	
Cut End Protector	225	SEP5	

SuperSleve 225

Fittings			
Description	Dia	Cat No	
90° Bend	225	SB1/5S	
45° Bend	225	SB2/5S	
30° Bend	225	SB3/5S	
15° Bend	225	SB4/5S	
Rest Bend	225	SBR5S	
Taper Pipe	150-225	ST3/2	
45° Oblique Junction one coupling on barrel coupling on the barrel and arm	225x100 225x150 225x225	SJ1/7S SJ1/8S SJ1/9D	
90° Curved Square Junction one coupling on barrel coupling on the barrel and arm	225x100 225x150 225x225	SJ3/7S SJ3/8S SJ2/9D	
Oblique Saddle	225	SJS2/5	
Square Saddle	225	SJS5/5	
Adaptor to HepSeal	225	SA2/5	
Socket Adaptor for Connection to traditional pipes + fittings	225	SA1/5	
Adaptors (polypropylene)			
Description	Dia mm	Code	
Adaptor Coupling to HepSleve	225	SA3/4	
Stopper Clay	225	SS3/4	

SuperSleve 300

Pipes			
Description	Dia mm	Code	
Full length 300mm x 2.0m	300	SP7S	
Plain End Pipes 300mm x 2.0m Plain end pipes for use with Nitrile couplings	300	SP7	
Rocker 0.3m 0.6m 1.0m	300 300 300	SP030/7 SP060/7 SP100/7	
Short length 0.3m 0.6m 1.0m	300 300 300	SP030/7S SP060/7S SP100/7S	
Fittings			
Description	Dia mm	Code	
Spare Couplings EPDM	300	SC1/7	
Nitrile	300	SC3/7	
Cut End Protector	300	SCEP7	
90° Bend	300	SB1/7S	
45° Bend	300	SB2/7S	
30° Bend	300	SB3/7S	
15° Bend	300	SB4/7S	
45° Oblique Junction Junction has one coupling on the barrel	300x100 300x150	SJ1/14S SJ1/15S	
Junction has a coupling on the barrel and arm	300x225 300x300	SJ1/17D SJ1/19D	
90° Square Junction Junction has one coupling on the barrel	300x100 300x150	SJ3/14S SJ3/15S	
Junction has a coupling on the barrel and arm	300x225 300x300	SJ3/17D SJ3/19D	
Oblique Saddle	300	SJS2/7	
Square Saddle	300	SJS5/7	
Rest Bend	300	SBR7S	

Fittings			
Description	Dia mm	Code	
Taper Pipe to 225mm SuperSleve	225-300	ST4/3	
Stopper	300	SS3/7	
Adaptor to HepSeal	300	SA2/7	
Adaptor to HepSleve	300	SA3/6	
Socket Adaptor for connection to traditional pipes + fittings	300	SA1/7	

Hepworth SuperSeal®

Pipes			
Description	Dia mm	Code	
Socket/Plain End with EPDM sealing rings Std. length			
1.75m	150	FP2S	
1.75m	225	FP175/4S	
2.0m	300	FP7S	
Short Length Pipes			
Description	Dia mm	Code	
Plain End Length			
0.6m	150	SP060/2	
0.3m	225	SP030/5	
0.6m	225	SP060/5	
1.0m	225	SP100/5	
0.3m	300	SP030/7	
0.6m	300	SP060/7	
1.0m	300	SP100/7	
Socket/Plain End Length			
0.6m	150	FP060/2S	
0.3m	225	FP030/5S	
0.6m	225	FP060/5S	
1.0m	225	FP100/5S	
0.3m	300	FP030/7S	
0.6m	300	FP060/7S	
1.0m	300	FP100/7S	

















Fittings			
Description	Dia mm	Code	
Couplings (Polypropylene) Nitrile Sealing Rings	150 225 300	SC3/2 SC3/5 SC3/7	
90° Bend	150 225 300	FB1/2S FB1/5S FB1/7S	
45° Bend	150 225 300	FB2/2S FB2/5S FB2/7S	
30° Bend	150 225 300	FB3/2S FB3/5S FB3/7S	
15° Bend	150 225 300	FB4/2S FB4/5S FB4/7S	
Rest Bend (DN150 Illustrated)	150 225 300	SBR2 FBR5S FBR7S	
Stopper Polypropylene Clay	150 225 300	SS1/2 SS3/4 SS3/7	
45° Oblique Junction Double Socket with single socket on barrel	150x100 225x100 300x100	FJ1/2S FJ1/7S FJ1/14S	
Junction has a socket on the barrel and arm	150x150 225x150 225x225 300x150	FJ1/3D FJ1/8D FJ1/9D FJ1/15D	
90° Curved Square Junction Double Socket with single socket on barrel	150x100 225x100 300x100	FJ2/2S FJ3/7S FJ2/14S	
Junction has a socket on the barrel and arm	150x150 225x150 225x225 300x150 300x300	FJ2/3D FJ3/8D FJ2/9D FJ2/15D FJ2/19D	
Square Tumbling Bay Junction Branch and barrel equal Single socket on barrel	150x150 225x225 300x300	FJ6/3S FJ6/9S FJ6/19S	
Oblique Saddle Small - for pipes up to and including 300mm dia.	150	SJS1/2	
Large - for pipes larger than 300mm dia.	150 225	SJS2/2 SJS2/5	

Fittings			
Description	Dia mm	Code	
Square Saddle Small - for pipes up to and including 300mm dia.	150	SJS4/2	
Large - for pipes larger than 300mm dia.	150 225	SJS5/2 SJS5/5	
Taper Pipe	150x100 225x150 300x225	ST2/1 ST3/2 ST4/3	
Adaptor to HepSeal	150 225 300	SA2/2 SA2/5 SA2/7	
Adaptor to HepSleve	150 225 300	SA3/2 SA3/4 SA3/6	


Gullies

Yard Gullies			
Description	Dia mm	Code	
Yard Gully Supplied complete with domestic duty grating and frame (up to 1 tonne)			
Nominal	Internal	Back	Outlet
Internal	depth	Inlet	dia
width mm	mm	dia	
225	585	-	100
225	585	100	100
225	585	-	150
225	585	100	150
With medium duty grating (up to 5 tonnes)			
225	585	-	100
225	585	100	100
225	585	-	150
225	585	150	150
Spare Stoppers			
Combined filter and silt bucket	205	IBP3	
Gully Extras Raising Piece 300mm Plain Raising Piece	225	SP030/5	
600mm Plain Raising Piece	225	SP060/5	
Spare Couplings EPDM	225	SC1/5	
Road Gully, round, with rodding eye & stopper			
Internal	Internal	Outlet	
depth mm	width mm	dia	
600	300	100	RGR1
600	300	150	RGR2
750	400	150	RGR3
900	450	150	RGR4
Spare Stoppers			
RSG1			
Plastic Road Gullies			
Description	Code		
Polypropylene Road Gully, plain 150mm outlet Internal diameter 510mm Internal depth 920mm	MGP1/1		
Adaptor to SuperSleve 150mm	MGPA		
Polypropylene Road Gully Trap For inserting into outlet of plain gully after reversing sealing grommet	MGPT		
Adaptor to SuperSleve 150mm	SA3/2		
Polyethylene Gully, trapped 150mm SuperSleve outlet Internal dia x Internal depth 375x750mm 510x840mm	MGP2/2 MGP3/2		
Traps			
Description	Dia mm	Code	
Universal Grease Trap 550mm deep Supplied complete including filter basket, spatula, cover and frame and 100/110 conversion adaptors	100/110	RGU1	
Internal length	Internal width		
600mm	450mm		
Spare Cover and Frame			
IGUCI			
Spare Filter Basket and Spatula	RGUFB		

Inspection Chambers








Inspection Chambers		
Description	Dia mm	Code
Up to 1.2m Deep		
 Mixed Base PPIC Polypropylene Inspection Chamber 150/160 straight through main channel with 2x150/160 branches at 90° & 2x100/110 branches at 45° 475mm dia. 1030mm deep. Supplied with 4 inlet stoppers. Conversion adaptors supplied.	150/160 100/110	SPIC1/2
 Raising Piece, 175mm deep, 475mm diameter		SPIC4
 Sealing Ring for Raising Piece 475mm diameter	100/110 or 150/160	SPIC5
 Mixed Base, 315mm deep, 150/160 straight through main channel with 2x150/160 branches at 90° & 2x100/110 branches at 45° Supplied with 4 inlet stoppers. Conversion adaptors supplied.	150/160 100/110	SPIC6/2
 Round Ductile Iron Cover & Plastics Frame Includes security clips for additional safety EN 124 A15 35kN		SPK8
 Round Ductile Iron Cover & Plastics Frame Includes security clips for additional safety EN 124 Colour - Black B125		SPK9
 Round Composite Cover & Plastics Frame Includes security clips for additional safety EN 124 Colour - Black		SPK10
 Round Composite Cover & Plastics Frame Includes security clips for additional safety EN 124 Colour - Green		SPK11
 Square Ductile Iron Cover & Frame (airtight) Includes security clips for additional safety EN 124 A15 35kN		SPKS8
 Recessed Cover for optional surface cover	-	SPCR8
 Inlet Adaptor from 150-100mm	150/100	SPIC7
Reduced Access Chamber		
Description	Dia mm	Code
Depth range 1.2 - 3.0m		
 Telescopic Raising Piece Assembly Airtight, Class B square cover with 350mm vertical and 4° angular adjustment, c/w installation instructions. Access not greater than 350mm dia. (BSEN752)		SPIC3/7
 Raising Piece 700mm deep, pre-sealed 475mm diameter		SPIC3/4
 Raising Piece 175mm deep 475mm diameter		SPIC4
 Sealing Ring For raising piece 475mm diameter		SPIC5
 Mixed Base PPIC Polypropylene Inspection Chamber 150/160 straight through main channel with 2x150/160 branches at 90° & 2x100/110 branches at 45° 475mm dia. 1030mm deep. Supplied with 4 inlet stoppers. Conversion adaptors supplied.	150/160 100/110	SPIC1/2
















HepSeal




Pipes		
Description	Dia mm	Code
 Supplied with EPDM sealing rings Special-purpose Nitrile Rings available.		
Standard length m		
2.0	400	HP200/5
2.0	450	HP200/6
2.0	500	HP200/7
2.5	600	HP8

Short Length Pipes		
Description	Dia mm	Code
 Spigot/Plain Ended Length 0.6m	400 450 500 600	HPS1/5 HPS1/6 HPS1/7 HPS1/8
 Socket/Plain Ended Length 0.6m	400 450 500 600	HPS2/5 HPS2/6 HPS2/7 HPS2/8
 Spigot/Socket For use where necessary as rocker pipes. Length 0.6m Length 1.0m	400 450	HPS3/5 HPS3/6
	400 450 500 600	HPS4/5 HPS4/6 HPS4/7 HPS4/8
Note: Other lengths available to special order only.		
Fittings		
Description	Dia mm	Code
 Sealing Rings Nitrile	400 450 500 600	RN5 RN6 RN7 RN8
EPDM (Spare Rings)	450 500 600	R6E R7E R8E
 90° Bend	400 450 500 600	HB1/5 HB1/6 HB1/7 HB1/8
 45° Bend	400 450 500 600	HB2/5 HB2/6 HB2/7 HB2/8
 22 1/2° Bend	400 450 500 600	HB5/5 HB5/6 HB5/7 HB5/8
 45° Oblique Junction with SuperSleeve arm	400x100 400x150 450x100 450x150 500x150	HJ3/11 HJ3/12 HJ3/14 HJ3/15 HJ3/18
 90° Curved Square Junction with SuperSleeve arm supplied with square arm	400x150	HJ4/12
 Square Tumbling Bay Junction Branch and barrel equal	400x400	HJ6/13


Channels

Channel Pipes Plain Ended		
Description	Dia mm	Code
 Pipe	Length m 0.3 0.6 1.0 1.0 0.3 0.6 1.0 1.0 1.0 1.0 1.0 1.0 1.0	100 100 100 150 150 225 300 400 450 500 600
		CPP1/1 CPP2/1 CPP3/1 CPP1/2 CPP2/2 CPP3/2 CPP3/3 CPP3/4 CPP3/5 CPP3/6 CPP3/7 CPP3/8
Channel Fittings Plain Ended		
Description	Dia mm	Code
 Enlarger/Reducer	100x150 225x300 300x400	CTP1/1 VCTP4/3 CTP1/4
 90° Bend	100 150 225 300	CBP1/1 CBP1/2 VCB1/3 VCB1/4
 45° Bend	100 150 225 300	CBP2/1 CBP2/2 VCB2/3 VCB2/4
 30° Bend	100 150 225 300	CBP3/1 CBP3/2 VCB3/3 VCB3/4
 15° Bend	100 150 225 300	CBP4/1 CBP4/2 VCB4/3 VCB4/4
 Plain ended 45° (1/8 circle)	400 450 500 600	CBP2/5 CBP2/6 CBP2/7 CBP2/8
Supplied in 3 separate segments		

Channel Pipes Socketed		
Description	Dia mm	Code
 Plain ended 221/2" (1/16 circle)	400 450 500	CBP5/5 CBP5/6 CBP5/7
Supplied in 2 separate segments	600	CBP5/8
 Oblique Junction left-hand (illustrated)	100x100 150x100 150x150	CJP1/1L CJP1/2L CJP1/3L
 Oblique Junction right-hand	100x100 150x100 150x100	CJP1/1R CJP1/2R CJP1/3R
 Curved Square Junction left-hand (illustrated)	100x100 150x100 150x150	CJP2/1L CJP2/2L CJP2/3L
 Curved Square Junction right-hand	100x100 150x100 150x150	CJP2/1R CJP2/2R CJP2/3R
 Pipe	Length m 0.3 0.3 0.3 0.3 0.6 0.6 0.6 0.6 1.0 1.0 1.0 1.0	100 150 225 300 100 150 225 300 100 150 225 300
		CP1/1 CP1/2 CP1/3 CP1/4 CP2/1 CP2/2 CP2/3 CP2/4 CP3/1 CP3/2 CP3/3 CP3/4
Channel Fittings Socketed		
Description	Dia mm	Code
 Enlarger	100x150 150x225 225x300	CT2/1 CT2/2 CT2/3
 Reducer	150x100 225x150 300x225	CT1/1 CT1/2 CT1/3
Channel Bends Socketed		
Description	Dia mm	Code
 90° Bend medium left-hand right-hand	LH RH LH RH LH RH	100 100 150 150 225 225
		CB1/1L CB1/1R CB1/2L CB1/2R CB1/3L CB1/3R CB1/4L CB1/4R
 45° Bend medium left-hand right-hand	LH RH LH RH LH RH	100 100 150 150 225 225
		CB2/1L CB2/1R CB2/2L CB2/2R CB2/3L CB2/3R CB2/4L CB2/4R
 30° Bend medium left-hand right-hand	LH RH LH RH LH RH	100 100 150 150 225 225
		CB3/1L CB3/1R CB3/2L CB3/2R CB3/3L CB3/3R CB3/4L CB3/4R
 15° Bend medium left-hand right-hand	LH RH LH RH LH RH	100 100 150 150 225 225
		CB4/1L CB4/1R CB4/2L CB4/2R CB4/3L CB4/3R CB4/4L CB4/4R
 Enlarger left-hand right-hand	LH RH LH RH LH RH	100x150 100x150 150x225 150x225 225x300 225x300
		CBT2/1L CBT2/1R CBT2/2L CBT2/2R CBT2/3L CBT2/3R
 Reducer left-hand right-hand	LH RH	225x150 225x150
		CBT1/2L CBT1/2R
 90° Curved Square Junction left-hand right-hand	LH RH LH RH LH RH LH RH LH RH LH RH	100x100 100x100 150x100 150x100 150x150 150x150 225x100 225x100 225x150 225x150 300x150 300x150 300x225 300x225 300x300 300x300
		CJ2/1L CJ2/1R CJ2/2L CJ2/2R CJ2/3L CJ2/3R CJ2/4L CJ2/4R CJ2/5L CJ2/5R CJ2/6L CJ2/6R CJ2/8L CJ2/8R CJ2/9L CJ2/9R CJ2/10L CJ2/10R

Fittings			
Description	Dia mm	Code	
 Spigot Plain	100 150	DBM2/2 DBM2/4	
 Plastic Bellmouth (removable)	100 150	DBM3/2 DBM3/4	
 Draw Rope (nylon) 220 metres coil	-	MDR	


HepLine


Pipes			
Description	Dia mm	Code	
 Standard 100+150mm diameter Coupling required from the SuperSleeve Range		LP1 LP2	
1.6m Perforated Plain Ended	100	LP175/3	
1.75m Perforated Plain Ended	150	LP200/4	
1.75m Perforated Single Socket	225	HLP200/5	
2.0m Perforated Single Socket	300	HLP200/6	
2.0m Slotted Socketed	400		
2.0m Slotted Socketed	450		

Plain Ended Pipe - Coupling Supplied

Fittings			
Stoppers and Fittings for HepLine subsoil drainage are available as follows:			
SuperSleeve Range for 100-300mm, HepSeal Range for 400-450mm			

Land Drain




















Pipes			
Description	Dia mm	Code	
 Length mm			
300	75	ALD1	
300	100	ALD2	
300	150	ALD3	
300	225	ALD4	





Junctions			
Description	Dia mm	Code	
 Length mm			
300	75X75	ALJ1	
300	100X100	ALJ2	
300	150X100	ALJ3	
300	150X150	ALJ4	

Unjointed


Pipes			
Description	Dia mm	Code	
 Standard pipe length			
1.0m	100	RP1	
1.0m	150	RP100/2	
1.0m	225	RP100/3	
1.0m	300	RP100/4	



Fittings			
Description	Dia mm	Code	
 90° Bend	100	RB1/1	
 45° Bend	100 150	RB2/1 RB2/2	
 30° Bend	100 150	RB3/1 RB3/2	


Fittings			
Description	Dia mm	Code	
 15° Bend	100 150	RB5/1 RB5/2	
 Rest bend	100 150	RBR1 RBR2	
 Oblique Junction	100x100 150x100 150x150	RJ1/1 RJ1/2 RJ1/3	
 Curved Square Junction	100x100 150x100 150x150	RJ2/1 RJ2/2 RJ2/3	
 Taper Reducer	150x100	RT1/1	
 Double Collar	100 150 225	RDC1 RDC2 RDC3	
 Loose Collar	100 150	RLC1 RLC2	
 Socket Adaptor Connects SuperSleeve to traditional pipes + fittings	100 150 225 300	SA1/1 SA1/2 SA1/5 SA1/7	
 Stopper Plain	100 150 225	RS1 RS2 RS3	
 Interceptor With fall between inlet and outlet. c/w stopper	100 150 225	RI 1/1 RI 1/2 RI 1/3	
 Interceptor c/w stopper	100 150 225	RI 2/1 RI 2/2 RI 2/3	
 Interceptor Reverse Action c/w stopper	100 150 225	RI 3/1 RI 3/2 RI 3/3	
 Round Raising Piece	Height mm 75 150 150 150 225 150 300 150 75 225 150 225 225 225 300 225 150 300 225 300 300 300	RRP2/1 RRP2/2 RRP2/3 RRP2/4 RRP3/1 RRP3/2 RRP3/3 RRP3/4 RRP4/2 RRP4/3 RRP4/4	
 Square Raising Piece	75 150 150 150 225 150 300 150 75 225 150 225 225 225 300 225 75 300 150 300 225 300 300 300	RRS2/1 RRS2/2 RRS2/3 RRS2/4 RRS3/1 RRS3/2 RRS3/3 RRS3/4 RRS4/1 RRS4/2 RRS4/3 RRS4/4	
 Rainwater Shoe with Vertical Back Inlet 100mm with 100mm Inlets 150mm with 150mm Inlets accepts lid + frame	100 150	RRWS3/1 RRWS3/2 ISO	
 Pipe Flap Valves	100 150 225 300	RPV1 RPV2 RPV3 RPV4	
 Low Back Trap P Outlet	100x100 150x150	RGL1/1 RGL1/3	
 Round Gully P Outlet	150x100	RG1/2	
 Antiflood Gully P Outlet	150x100	RGA1	

Fittings			
Description	Dia mm	Code	
 Square Gully P Outlet 1 Horizontal 100 LHI 100 RHI	150x100 150x100	RGS5/1 RGS6/1	
 Square Gully P Outlet 2 Horizontal Inlets mm 100 LH1 100 HB1	100 RHI 100 RHI 150x100 150x100	RGS7/1 RGS9/1	
 Square Gully P Outlet One Vertical Inlet	100 VBI 100 VRI 150x100 150x100	RGS10/1 RGS12/1	
 Dish Tops	100 150	RDR2 RDR3	

Flexible Couplings









Standard Couplings			
Description	Dia mm	Code	
 Standard	110 to 1999	†	

Adaptors			
Description	Dia mm	Code	
 Universal Range	110-121 to 260-285	†	
 Drainage Range	80-95 to 265-290	†	

Bushes			
Description	Dia mm	Code	
	101 to 1999	†	

† SEE DRAINAGE PRICE LIST FOR FULL DETAILS

Accessories

Accessories			
Description	Dia mm	Code	
 Pipe Cutter Lever	100 100/150	MPC1 MPC2	
 Pipe Cutter Screw	up to 225	MPC6	
 Pipe Trimmer	100/150	MPT1	
 Masonry Saw Blade HepBlade Diamond tipped blade recommended for cutting ceramic pipes	300	DTB1 DTB2	
 Expanding Pipe Stoppers	100 150 200 225 300	QTP1 QTP2 QTP3 QTP4 QTP6	
 Lever Locking Stoppers	Pipe size mm 100 140 150 188 225 267	IL1 IL2 IL3	
 Lubricant - 1 kilo Lubricant - 2.5 kilo		SL1 SL2	
 High Performance Jointing Lubricant - recommended for HepSeal, Nitrile Seals, cold and / or wet weather - 1 kilo		SL1C	

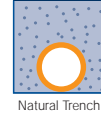


Recommended Bedding Requirements Main Traffic Roads

DN	150		225		300		400		450		500		600		
Class No.	187	267	124	160	200	113	240	120	160	120	96	120	95	95	
System Type	HepLine	SuperSleeve/Seal HepDuct	HepDuct	HepLine	SuperSleeve/ SuperSeal	HepLine/ HepDuct	SuperSleeve/Seal	HepLine	HepSeal	HepSeal/ HepLine	HepLine	HepSeal	HepSeal/ HepLine	HepLine	
Crushing Strength kN/m	28	40	28	36	45	34	72	48	64	54	48	60	57		
Depth of Cover (m)	1	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	2	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	3	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	4	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	5	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	6	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	7	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	8	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	9	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	
	10	Concrete Surround		Bedding Factor 1.1 Class D+N		Bedding Factor 1.9 Class F		Bedding Factor 2.5 Class B+S		Concrete Surround		Bedding Factor 1.1 Class D+N		Concrete Surround	

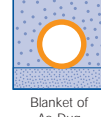
Concrete Surround
 Bedding Factor 1.1 Class D+N
 Bedding Factor 1.9 Class F
 Bedding Factor 2.5 Class B+S

Class D*



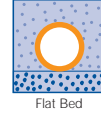
Natural Trench

Class N*



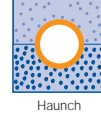
Blanket of As-Dug Material

Class F



Flat Bed

Class B



Haunch

Class S



Surround

Selected backfill

Granular material

As dug material

Class D (Bedding factor 1.1)

If the sub-soil falls within types III to VI in Table E1 in Approved Document A1/2 of The Building Regulations 1985 (see below left), hand-trim the trench bottom with a spade to support the pipe along the length of its barrel, allowing for any socket recesses.

Class N (Bedding factor 1.1)

Where the subsoil cannot be trimmed accurately, excavate the trench to a depth of at least 50mm below the pipe barrel for Sleeve pipes, and 100mm for Socketed pipes, increasing this in rocky ground to 150mm for Sleeve, and 200mm for Socketed pipes (shown as a in the diagrams).

Form a bed for the pipe from as-dug, if suitable, or granular material, well compacted and covering the full trench width. Socket holes should be taken out and the pipe barrel rested firmly on its bedding. Any granular material used should be packed by slicing with a spade.

Class F (Bedding factor 1.9)

Recommended for maximum installed cost savings.

Class B (Bedding factor 2.5) and Class S (Bedding factor 2.5)

The bedding factors listed above are limited to use with clay pipes only. This provides the benefit of savings in excavation, removal from site and imported material, especially when compared with flexible pipes which require a full granular surround.

* see Agrément Certificate 02/3884 for SuperSleeve

Extract from Table E1 in Approved Document A1/2 of The Building Regulations 1985

Type of subsoil	Conditions	Field test applications
III Clay Sandy clay	Stiff	Cannot be moulded with the fingers, and requires a pick or mechanically operated spade for its removal
IV Clay Sandy clay	Firm	Can be moulded by substantial pressure with the fingers and can be excavated with graft or spade
V Sand Clayey sand/Silty sand	Loose	Can be excavated with a spade. Wooden peg 50mm square in cross-section can be easily driven
VI Silt Sandy clay/Silty clay	Soft	Fairly easily moulded in the fingers and readily excavated

Sizing of Bedding Material

Nominal bore of pipe (mm)	Size mm Single sized	Size mm Graded
150-200	10 or 14	14 to 5
225-300	10, 14 or 20	14 to 5 or 20 to 5
375-500	14 or 20	14 to 5 or 20 to 5
Exceeding 500	14, 20 or 40	14 to 5, 20 to 5 or 40 to 5

All granular material to be single sized or graded in accordance with **BS 882**: 1992, sintered pulverized-fuel ash to **BS 3797**: 1990 and air-cooled blast furnace slags to **BS 1047**: 1983 are suitable.

For Bedding information on Fields and Gardens, please refer to the Hepworth website at: www.hepworth.co.uk

Sitework and Installation Instructions

Health and Safety Information

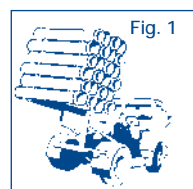
To ensure your safety; Hepworth strongly recommend the use of the correct form of personal protective equipment (PPE) when cutting or handling clay pipes. This should include goggles or similar eye protection, along with sturdy gloves.

Further Health and Safety data is available in the form of a Material Safety Data sheet for Fired Clay Products. (Available from the Hepworth web site at: www.hepworth.co.uk).

Delivery

Vitrified clay pipes can be delivered to site in pre-packed form and can be mechanically off-loaded quickly by the delivery vehicle, if pre-arranged at the time of ordering for full vehicle loads only, or by the customer's own plant such as fork lift or crane (Fig. 1). Large diameter pipes not in packs should be carefully off-loaded using slings. These

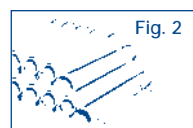
should never be passed through the barrel of the pipe, and multiple pipe lifting with slings should be avoided, as this could result in damaged pipes.



Never unload pipes by dropping them, and avoid moving the pipes on site by rolling or dragging.

Storage

If stacking is necessary, this should be on level ground, and the bottom layer of pipes should be firmly wedged for stability. Socketed pipes should be kept clear of the ground by a wooden batten (Fig. 2).



Successive rows should be turned end-for-end, with the spigots projecting beyond the sockets, and with timber wedges or battens at the ends of the bottom row to prevent movement (Fig. 2).

Trench Preparation

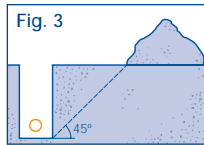
The trench should not be excavated too far in advance of pipe laying and should be backfilled as soon as possible. Trench widths should be as narrow as practicable but not less than the pipe OD plus 300mm to enable proper compaction of sidefill. Trench sides should be correctly supported.

The type of bedding and filling needed depends on:-

- pipe type and size
- depth of pipe under surface
- width of trench
- type of subsoil

- load on surface of trench (eg. under a road, field or garden)

Selected material and, where required, subsoil and topsoil should be put aside for backfilling at a later stage (Fig. 3).



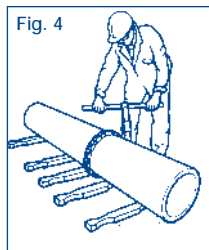
All excavated material should be placed 4 to 5 metres from the edge of the excavation or outside a 45° line drawn from the bottom of the trench.

If applicable, buried services such as gas, electricity and water should be uncovered with extreme care.

Trenches should be kept free from water, where possible, and the trench formation should be maintained free from disturbance due to foot traffic.

Pipe Cutting New Short Length Pipes

Pipe cutting can be minimised and installation time reduced by the use of standard short lengths. They are primarily for use at manhole positions as rocker pipes or to adjust the pipeline length at manhole or junction positions.



Recommended Cutting Method by Pipe Diameter

SuperSleeve 150mm - Lever action chain cutter Code MPC2
SuperSleeve 225mm - Screw action chain cutter Code MPC6 / Masonry saw
SuperSleeve 300mm - Masonry saw

Pipe Chain Cutter

This procedure should be followed to ensure a good quality cut with either a Lever or Screw action pipe chain cutter (Fig. 4).

- Make a clear mark around the circumference of the pipe at the desired length.
- Pass the chain under the pipe, aligning the cutting wheels on the desired mark.
- Hook the chain link onto the jaw of the pipe cutter.
- Tighten the chain upon the pipe by closing the arms of the lever cutter together. Or turn the tension bar of the screw cutter until tight.
- Make a final check for correct alignment of the chain with the pipe, then continue to increase the chain tension by either method until the pipe cuts.
- After cutting, any sharp edges may require trimming with an emery stone. For 150mm diameter SuperSleeve use pipe trimmer - product code MPT1.
- Alternatively on 225mm diameter a pipe end protector may be used see Fig. 5.

Powered Masonry Saw

A powered masonry saw can be used to cut any diameter of pipe. Generally, 100 & 150mm diameters are cut with a pipe chain cutter for speed and efficiency. 225 & 300mm diameters are generally cut by a powered

masonry saw, using either a carborundum or diamond tipped blade. Diamond tipped blades cut most efficiently, and have the longest blade life. Carborundum blades will produce a good cut but may be slightly slower and have a shorter blade life. The quality of cut may vary according to the blade specification. Please contact the Technical Advisory Service for further information.

When using a powered masonry saw a safe system of work should be followed:

- Before any pipe cutting operation is started, read and adhere to the safety and operating instructions of both the masonry saw and the blade manufacturer.
- Check that the masonry saw is fitted with the correct specification of blade.
- Make a clear mark around the circumference of the pipe at the desired length.
- The pipe being cut should be positioned in a horizontal and stable position.
- Care should be taken to support and secure both halves of the pipe being created by the cut, to avoid the blade being nipped as the pipe separates.
- With the correct personal protective equipment in place commence the cut; the best quality cut is generally achieved by making one continuous cut.
- After cutting, any sharp edges may require trimming with an emery stone.
- Alternatively on 225 & 300mm diameters a pipe end protector may be used see Fig. 5.

Pipe End Protection

Trimming of the pipe is not required if the pipe cut end protector is used prior to jointing. Once the protector is placed over the end of the pipe the joint can be made quickly and easily without the risk of damaging the rubber seal (Fig. 5). Sharp edges should be removed with a pipe trimmer, emery stone or coarse file prior to jointing if the pipe cut end protector is not used.



Pipe Jointing

SuperSleeve/SuperSeal®/HepDuct/HepLine

Check that the components are not damaged in any way that could result in an unsatisfactory joint. Lower the pipe on slings into the trench. Ensure that the inside of the coupling and the exterior of the spigot is clean. Spread a layer of lubricant over the pipe end to the required insertion depth and push the coupling home onto the pipe (Fig. 6). Lower the next pipe into the trench, inserting the pipe into the coupling of the pipe previously laid.

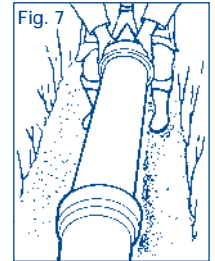


Large Diameter HepSeal/HepLine

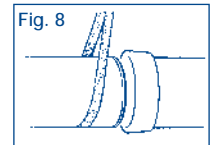
Check that the component is not damaged in any way that could result in an unsatisfactory joint. Ensure that the inside of the socket is clean. Spread a layer of Hepworth Lubricant over the polyester moulding inside the socket.

Do not lubricate the spigot or rubber seal.

Clean the spigot and fit the rubber ring into the groove. Push the spigot fully home into the socket by hand, using a slight side-to-side movement (Fig. 7). To joint a cut HepSeal pipe use a flexible coupling.



Special care should be taken with large diameter pipes of all systems. To ease handling lower the pipes on a double sling support, centre the spigot in the socket or coupling and push the joint home (Fig. 8).



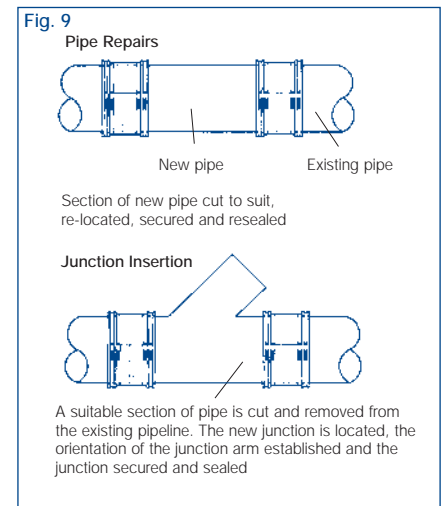
Trench Backfilling

In the first stages of backfill, selected material should be placed uniformly on both sides of the pipe by hand in layers not exceeding 100mm in thickness, each layer being compacted by hand tamping until the pipe has a minimum of 150mm compacted cover.

Further backfill should be placed in layers not exceeding 300mm, each layer being well compacted. Mechanical compaction equipment should not be used until there is a minimum of 450mm of compacted material above the crown of the pipe.

Flexible Couplings

A wide range of flexible couplings are available for replacement and repair operations. They may be used for the placing of new pipes into a drain or sewer to replace damaged or failed pipes, for the insertion of junctions into existing pipelines or for the connection of different sizes or types of pipes (Fig. 9).



Testing

Before any backfilling takes place, Hepworth advise that testing should be carried out in accordance with the recommendations set out in BS EN 1610: 1998. The Air and Water test procedure is detailed in the Hepworth Drainage Solutions Handbook and web site under Technical – Specifier Manual – Sitework – Testing.

'Building Regulations Approved Document H' (clause 2.63) states that their test requirements can be met by following the

recommendations set out in **BS EN 1610: 1998**.

Sewers for adoption states that their test requirements can be met by following the recommendations set out in clause 4.7.4 and 4.7.5, and recommends that further advice can be found as set out in **BS EN 1610: 1998**.

System Performance and Applications

Chemical Resistance

Clay pipes are resistant to practically all chemical attack. When designing a new sewer system and selecting the materials, consideration should be given to the nature of the development and the possibility of discharge of harmful material.

The principal causes of chemical attack are trade effluents, which can be a wide variety of chemical types, and contamination in surrounding soils. Land in which sewers are to be laid is commonly contaminated e.g. ex gas work sites, and pipe specification is important.

Clay is an inert material and does not generally require internal or external protection. Clay is unaffected by acid conditions resulting from the presence of hydrogen sulphide in sewers and remains unaffected where the pH value is between 2 and 12.

Standards

The SuperSeal®, SuperSleve, HepSeal and HepLine drainage systems comply with all the relevant clauses of **BS EN 295: 1991**: Vitrified clay pipes and fittings and pipe joints for drains and sewers.

HepDuct complies with **BS 65: 1991**: Vitrified clay pipes, fittings and ducts, also flexible mechanical joints for use solely with surface water pipes and fittings.

Polypropylene couplings comply with **BS EN 295-1**. The rubber sealing rings conform to **BS EN 681-1: 1996**: Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications. Part 1. Vulcanised rubber.

Flexible couplings up to 600mm in diameter also comply with **BS EN 295-4: 1995** Vitrified clay pipes and fittings and pipe joints for drains and sewers Part 4. Requirements for special fittings, adaptors and compatible accessories.

Hepworth clay drainage systems have been designed to meet the provisions laid out in 'Sewers for Adoption - a design and construction guide for developers'. Universal Inspection/Access systems has Agrément Certificate: 02/3884.

All systems are capable of meeting the design, layout, construction, testing and maintenance requirements in **BS EN 752** parts 1 to 4 and **BS EN 1610: 1998** for foul, surface and ground water drainage.

Quality Assurance

All Hepworth drainage products are manufactured under a quality management system which is approved to **BS EN ISO 9001:2000** Quality Management Systems -Requirements.



All Hepworth manufacturing sites operate Environmental Management Systems which comply with the requirements of and are certified to **BS EN ISO 14001**, Certificate Nos. EMS 71221, EMS 79968, EMS 77181, EMS 77364 and EMS 82340.



Lifetime Jetting Guarantee

The increasing use of high pressure jetting as a routine and cost-effective method of removing blockages in sewers has led to concerns among water companies, local authorities, developers, contractors and water jetting specialists about the ability of pipelines to withstand such applications. In response to these concerns Hepworth Building Products has introduced a unique Lifetime Jetting Guarantee* on its sewerage systems for jetting maintenance up to 7,500 psi.

The Guarantee

All products in the Hepworth Clay Drainage range are guaranteed for the system lifetime against penetration of the pipe wall caused by the following jetting criteria:

- High pressure water jet used at a pressure of up to 7,500 psi (517 bar)
- At a flow rate not exceeding 20 gallons per minute (1.5 litres per second)
- Held immobile for a constant period of not more than 5 minutes

* When laid in accordance with Hepworth instructions and the requirements of the codes of practice and guides relevant to their use.



System Applications

System	Nominal Diameter (mm)	Applications	Specification
SuperSleve	150, 225, 300	Foul and surface water in housing, industrial commercial, highway drainage and adoptable sewers.	BS EN 295: 1991 Part 1
SuperSeal®	150, 225, 300	Adoptable sewers and foul and surface water in industrial, commercial and highway drainage.	BS EN 295: 1991 Part 1
HepSeal	400, 450, 500, 600	Adoptable sewers and foul and surface water in industrial, commercial and highway drainage.	BS EN 295: 1991 Part 1
HepDuct	100, 150, 225, 300	Communication and power ducting in commercial, industrial and road developments.	BS 65: 1991
HepLine	100, 150, 225, 300, 400, 450	Surface water collection - highways, playing fields, sports grounds, forestry, waste tips and general land drainage. Effluent dispersal in housing and industrial developments.	BS EN 295: 1991 Part 5
Flexible Couplings	110 to 1999	Repair, adapting to other systems and secondary connections.	BS EN 295: 1995 Part 4



Hepworth
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